

AMENDMENTS TO THE DRAWINGS

The attached sheet of a drawing includes changes to Fig. 4. This sheet replaces the original sheet including Fig. 4. Fig. 4 has been amended to reflect amendments made to the claims.

REMARKS

Elections/Restrictions

In response to Examiner's election requirement during the telephone interview on December 2, 2004, Applicants provisionally elected, with traverse, to prosecute the invention of species I, claims 1-3, 5-14, and 16-26. Applicants affirm this election, with traverse. Therefore, claims 4 and 15 have been withdrawn.

Claim Objections

Examiner objected to claims 1 and 22 due to the following informalities: Part of line 2 of claim 1 read "a portion a backside," and line 2 of claim 22 read "a plurality if vacuum." In response, Applicants have made the appropriate corrections. All corrections are fully supported by the original disclosure and no new matter has been introduced.

Amendments to the Claims and Drawings

In addition to the corrections listed above, Applicants have taken this opportunity to amend independent claims 1, 11, and 23, and dependent claims 2, 3, 5-7, 10, 13, 14, 16-19, 21, 24, 25, and 26 to better reflect certain aspects of the invention and to improve the clarity of the claims without modifying their scope. All amendments are fully supported by the original disclosure and no new matter has been introduced.

In light of the foregoing amendments to the claims, Figure 4 of the drawings has also been amended to reflect those changes.

New Claim 27

Applicants also have taken this opportunity to add new dependant claim 27. The new claim is fully supported by the original disclosure and no new matter has been introduced.

Claim Rejections under 35 U.S.C. §102(b) – *Zuniga*

Examiner rejected claims 1, 2, 6, 7, 9-13, 17-19, 21 and 23-26 under 35 U.S.C. §102(b) as being unpatentable over *Zuniga* (U.S. Patent 6,210,255) (hereinafter "*Zuniga*"). In response, Applicants have amended independent claim 1 to recite:

A substrate retainer, comprising:

a plurality of retainer bodies, configured to removably engage a substrate having a back side, wherein each retainer body engages a corresponding inner portion of the back side and the plurality of retainer bodies collectively engage less than the entire back side; and

a flexure coupled to one of the retainer bodies, configured to restrict one or more degrees of movement of the substrate with respect to the substrate retainer.

Thus, the required substrate retainer is comprised of a plurality of retainer bodies, wherein each retainer body engages a corresponding inner portion of the back side of a substrate and the plurality of retainer bodies collectively engage less than the entire back side of the substrate, thereby providing substantial support for the substrate while reducing contact with the substrate. These new limitations place the claim into allowance because *Zuniga*'s substrate retainer cannot be said to be comprised of a plurality of retainer bodies, wherein each retainer body engages a corresponding inner portion of the back side of a substrate and the plurality of retainer bodies collectively engage less than the entire back side of the substrate. Rather, *Zuniga* is directed to a single pressurizable chamber, the lower surface of which acts as a mounting surface for a substrate. *Zuniga*, col. 5, lines 2-12; fig. 2. *Zuniga*'s mounting surface engages the entire back side of a substrate. *Zuniga*, fig. 2. In fact, *Zuniga* teaches that the carrier head "distributes force across the back surface of the substrate." *Zuniga*, col. 4, lines 43-45. Thus, *Zuniga* necessarily requires a single substrate retainer with a mounting surface that engages the entire back side of a substrate thereby prohibiting use of a plurality of retainer bodies collectively engaging less than the entire back side of the substrate. Therefore, Applicants respectfully submit that claim 1 is patentable over *Zuniga*.

Claims 11 and 23 contain the same elements as that of claim 1. Thus, for at least the same reasons as discussed above, Applicants respectfully submit that claims 11 and 23 are patentable over *Zuniga*. Furthermore, claims 2, 6, 7, 9, 10, 12, 13, 17-19, 21, and 24-26 depend on one of claims 1, 11, or 23, thereby incorporating their elements. Therefore, Applicants respectfully submit that claims 2, 6, 7, 9, 10, 12, 13, 17-19, 21, and 24-26 also are patentable over *Zuniga*.

Claim Rejections under 35 U.S.C. §102(b) – Sinclair

Examiner also rejected claims 1-3, 8, 11, 13, 14, 20, and 22 under 35 U.S.C. §102(b) as being unpatentable over Sinclair (U.S. Patent 6,494,769) (hereinafter “*Sinclair*”). As discussed above, Applicants have amended claim 1 to recite:

A substrate retainer, comprising:

a plurality of retainer bodies, configured to removably engage a substrate having a back side, wherein each retainer body engaging a corresponding inner portion of the back side and the plurality of retainer bodies collectively engaging less than the entire back side; and

a flexure coupled to one of the retainer bodies, configured to restrict one or more degrees of movement of the substrate with respect to the substrate retainer.

Thus, the required substrate retainer is comprised of a plurality of retainer bodies, wherein each retainer body engages a corresponding inner portion of the back side of a substrate and the plurality of retainer bodies collectively engage less than the entire back side of the substrate, thereby providing substantial support for the substrate while reducing contact with the substrate. These new limitations place the claim into allowance because *Sinclair*’s substrate retainer cannot be said to be comprised of a plurality of retainer bodies, wherein each retainer body engages a corresponding inner portion of the back side of a substrate and the plurality of retainer bodies collectively engage less than the entire back side of the substrate. *Sinclair* is directed to a wafer plate 112 capable of being “controlled to flex into a concave or convex shape by a predetermined amount, thus advantageously changing the shape of wafer 102 during polishing.” *Sinclair*, col. 6, lines 25-29; figs. 2A and 6. Such wafer control can only be

accomplished through use of a single plate that covers the entire back side of a wafer. Thus, *Sinclair* does not teach a substrate retainer comprised of a plurality of retainer bodies collectively engaging less than the entire backside of the substrate.

Further, *Sinclair* teaches a retainer 146 that “extend[s] vertically below the lower surface 112a of wafer plate 112 . . . [functioning] to maintain wafer 102 in a juxtaposed relationship (i.e., prevents ‘wafer slip-out’) with surface 112a and also in contact with surface 112a.” *Sinclair*, col. 9, lines 2-6. Thus, *Sinclair* does not teach a substrate retainer with retainer bodies engaging a corresponding inner portion of the back side of a substrate. Therefore, Applicants respectfully submit that claim 1 is patentable over *Sinclair*.

Claim 11 contains the same elements as that of claim 1. Thus, for at least the same reasons as discussed above, Applicants respectfully submit that claim 11 also is patentable over *Sinclair*. Furthermore, claims 2, 3, 8, 13, 14, 20, and 22 depend on one of claims 1 or 11, thereby incorporating their elements. Therefore, Applicants respectfully submit that claims 2, 3, 8, 13, 14, 20, and 22 also are patentable over *Sinclair*.

Claim Rejections under 35 U.S.C. §103(a) – Zuniga and Gleason

Examiner also rejected claims 5 and 16 under 35 U.S.C. §103(a) as being unpatentable over *Zuniga* in view of Gleason (U.S. Patent 6,390,904) (hereinafter “*Gleason*”). *Gleason* is directed to a wear-resistant retaining ring that is disposed around the outer perimeter of the substrate to prevent slipping of the substrate during processing. *Gleason* figs. 8, 9, and 10. Therefore, Gleason does not remedy the above discussed deficiency of claim 1. Accordingly, claims 1 and 11 remain patentable over *Zuniga* even when combined with Gleason.

Claims 5 and 16 depend on claims 1 and 11 respectively, incorporating their limitations correspondingly. Thus, for at least the same reasons, claims 5 and 16 are patentable over *Zuniga* and Gleason combined.

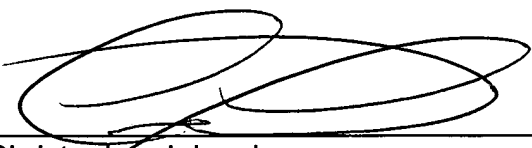
CONCLUSION

In view of the foregoing, Applicants submit that all claims are in condition of allowance. Thus, entry of the offered amendments and early issuance of Notice of Allowance is respectfully requested.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 500393.

Respectfully submitted,
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